

HELPLESSNESS, OPTIMISM, & SIMULATING COMMAND DECISIONS

TRADOC

September 13, 2006

seligman@psych.upenn.edu



Outline

- ❖ Learned Helplessness
- ❖ Learned Optimism



Defining Symptoms of LH

- ❖ Passivity
- ❖ Cognitive Retardation
- ❖ Generality
- ❖ Animals and Humans



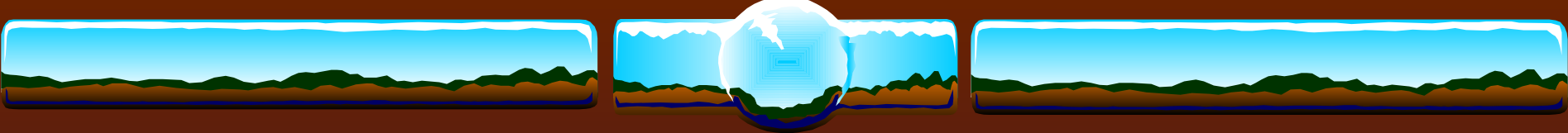
Other Symptoms of LH

- ❖ Emotion: Sadness and Anxiety
- ❖ Lack of Appetite
- ❖ Aggression, Defeat, & Anger
- ❖ Sleep Disruption
- ❖ Time Courses and Reinstatement
- ❖ Physical Illness: Tumors and Sudden Death
- ❖ Neurotransmitter, Endorphin, & Immune Changes



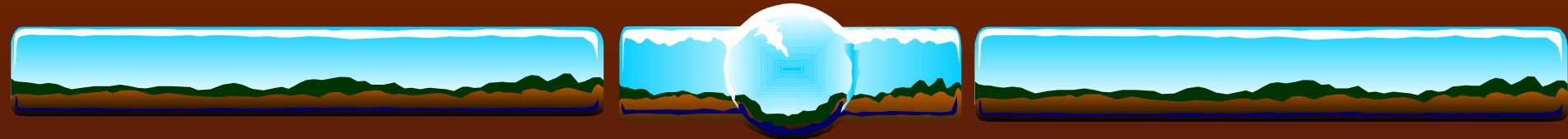
Symptoms of LH Depression

- ❖ Passivity
- ❖ Cognitive Retardation
- ❖ Emotion: Sadness and Anxiety
- ❖ Lack of Appetite
- ❖ Aggression and Anger diminish
- ❖ Sleep Disruption
- ❖ Time Courses and Reinstatement
- ❖ Physical Illness: tumors and cardiac
- ❖ Sudden Death
- ❖ Neurotransmitter, Endorphin, & Immune Changes



Learned Optimism and Cognitive Therapy

- ❖ $1/3$ and $1/10$
- ❖ Three dimensions
 - Stable
 - Global
 - Internal

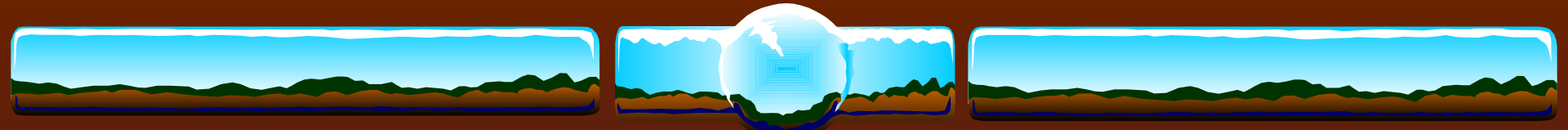


Definition of Setback Optimism

- ❖ Temporary-Permanent
- ❖ Local-Pervasive
- ❖ External-Internal

Victory

- ❖ Permanent-Temporary
- ❖ Pervasive-Local
- ❖ Internal-External



Consequences of Optimism

- ❖ Halves Depression
- ❖ More Achievement
 - ❖ School
 - ❖ Work
 - ❖ Sports
- ❖ Better Physical Health
- ❖ Better Interpersonal Relations
- ❖ Less Realism



SASQ

www.foresightonline.com

You can't get all your assigned work done

Cause? **Overbearing Boss**

To what extent will that cause be present in the future?

1 2 3 4 5 **6** 7

never

always

To what extent does that cause influence everything in your life?

1 **2** 3 4 5 6 7

influences

influences

Nothing else

Everything else

To what extent is that cause your fault?

1 2 3 4 5 6 7

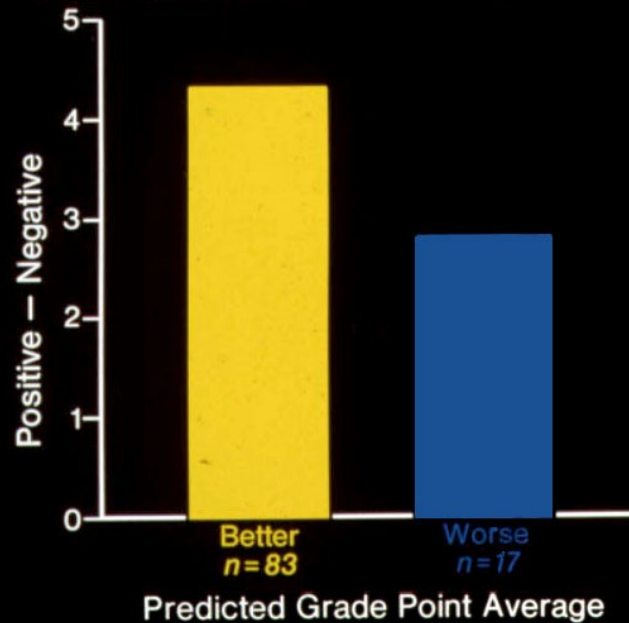
not at all

all my fault



Grade Point Average

PENN FRESHMEN
EXPLANATORY STYLE:
OVERACHIEVERS AND UNDERACHIEVERS

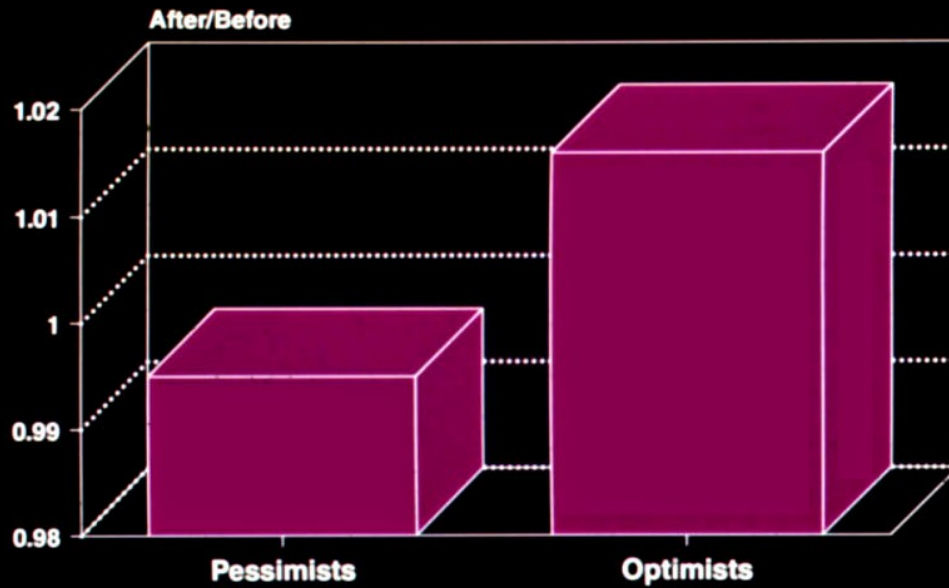


Kamen & Seligman (1987)



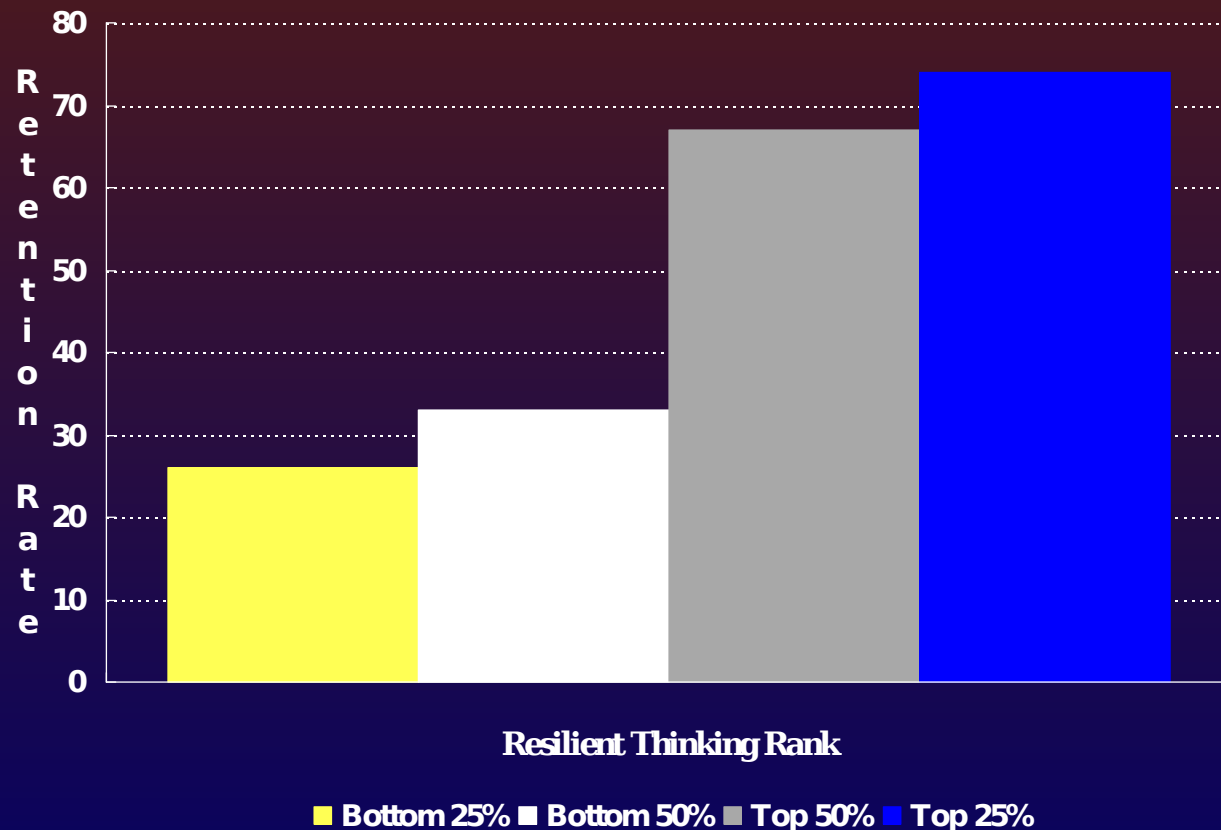
Olympic Swimmers

SWIMMING TIME False Feedback



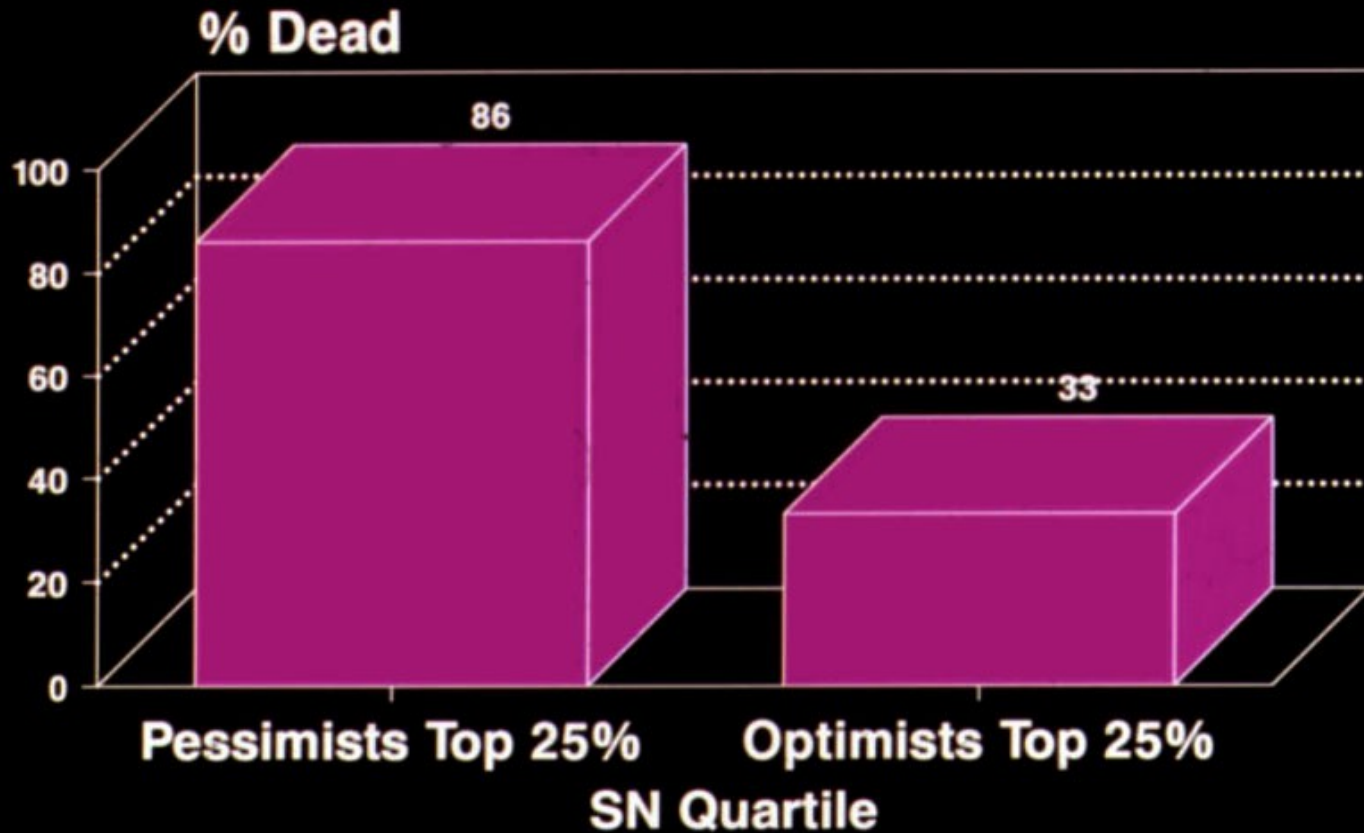


Sales Force Retention Met Life



SECOND HEART ATTACK

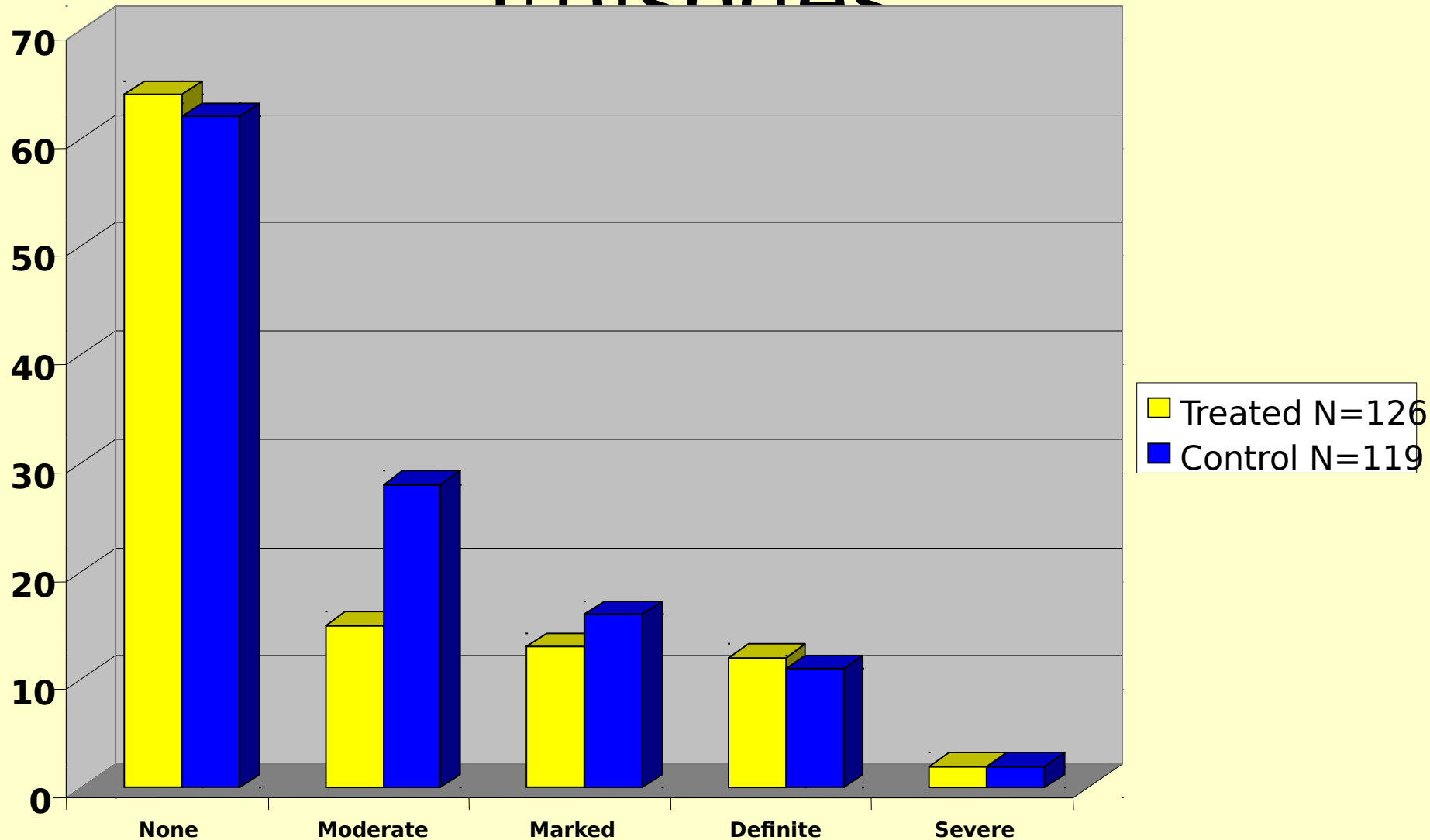
Stable Negative

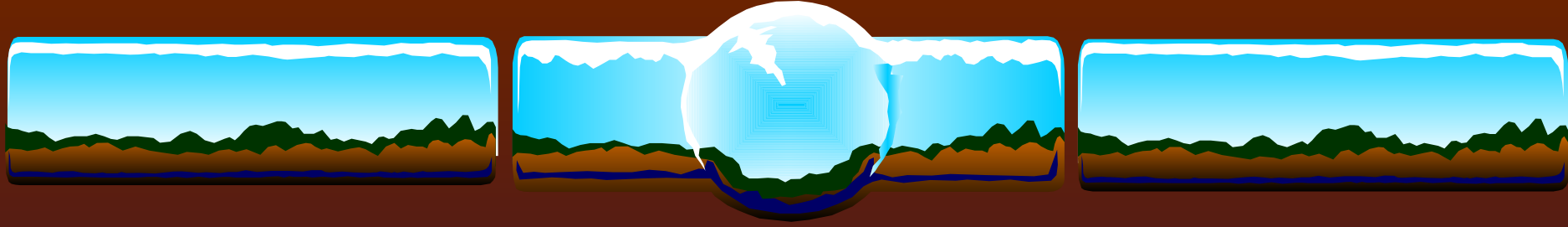


Patillo, Buchanan, Thoresen, & Seligman



Preventing Depressive Episodes





Part 2



Simulating Command Decision: Underlying Science



Outline

- ❖ Caveats
- ❖ Scientifically & Technically Feasible
- ❖ Underlying Theory (New)
- ❖ Applying Theory to Training
- ❖ Chicken Sexing
- ❖ Training in the Simulator
- ❖ Creating the Content
- ❖ One Domain versus Multiple Domains



Purpose

- ❖ Boxing vs Combat

- ❖ Payoff

Improved Decisions under Pressure

Bloodless

Turn Mediocre into Eagles

Eagles into SuperEagles

Coaching and Mentoring

Measurable Improvement



Theor y

- ❖ 3 issues have same solution: Concepts, Family Resemblance, Command Decisions
- ❖ Dimensionalize & Weight
- ❖ Facial Recognition & Computational Modeling (Kahana)



Theory to Training

- ❖ Rolodex of Problems
- ❖ Computational Model
- ❖ Chicken Sexing as Default



Setting

- ❖ Emotion Matching
- ❖ Rheostat
- ❖ Interruption and Coaching
- ❖ Selection
- ❖ Multiple Problems



Creating the Content

- ❖ Identifying Eagles
- ❖ Problem Set
 - Historical
 - Hypothetical
- ❖ Dimensionalizing Problem Set
- ❖ Target Problem Set (Eagles +)
- ❖ Unpacking Underlying Equations
- ❖ Prototype Testing
- ❖ Full Simulator (Measure Improvement + Coaching)
- ❖ Validate Simulator



Domain S

- ❖ Multiple Domains
- ❖ Sweep Through Single Domains
(e.g., Close Combat Captains)
 - Recognizing Ambush
 - React to Incoming
 - Recognize & Move Through IED's
 - Interrogating POW Under Fire